BRUHATH BANGALORE MAHANAGARA PALIKE
BYATARAYANAPURA DIVISION

Name of the work: Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura

Second and Part Bill
Detailed Measurement

74

Bruhat Bengaluru Mahanagara Palike

Bytarayanapura Division

Job Code :-

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Bill No :-2nd & Part Bill

Name Of work : -.Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)										
	Desilt										
	kallappa Layout										
	1st Cross Road										
	LHS										
	0.00	15.00		1.00	15.00			0.50	0.40	3.00	
	15.00	30.00		1.00	15.00			0.50	0.40	3.00	
	30.00	44.30		1.00	14.30			0.50	0.40	2.86	
	RHS										
	0.00	15.00		1.00	15.00			0.50	0.40	3.00	
	15.00	30.00		1.00	15.00			0.50	0.40	3.00	
	30.00	43.90		1.00	13.90			0.50	0.40	2.78	
	1st A Cross Road										
	LHS										
	0.00	15.00		1.00	15.00			0.50	0.40	3.00	
	15.00	30.00		1.00	15.00			0.50	0.40	3.00	
	30.00	45.00		1.00	15.00			0.50	0.40	3.00	
	45.00	60.00		1.00	15.00			0.50	0.40	3.00	
	60.00	64.00		1.00	4.00			0.50	0.40	0.80	
	2nd Cross Road										
	LHS										
	0.00	15.00		1.00	15.00			0.50	0.40	3.00	
	15.00	30.00		1.00	15.00			0.50	0.40	3.00	
	30.00	43.60		1.00	13.60			0.50	0.40	2.72	
	RHS										
	0.00	15.00		1.00	15.00			0.50	0.40	3.00	
	15.00	30.00		1.00	15.00			0.50	0.40	3.00	
	30.00	43.60		1.00	13.60			0.50	0.40	2.72	
	2nd A Cross Road										
	LHS										
	0.00	15.00		1.00	15.00			0.50	0.40	3.00	
	15.00	30.00		1.00	15.00			0.50	0.40	3.00	
	30.00	45.00		1.00	15.00			0.50	0.40	3.00	
	45.00	60.00		1.00	15.00			0.50	0.40	3.00	
	60.00	76.50		1.00	16.50			0.50	0.40	3.30	
	RHS										
	0.00	15.00		1.00	15.00			0.50	0.40	3.00	
	15.00	30.00		1.00	15.00			0.50	0.40	3.00	
	30.00	45.00		1.00	15.00			0.50	0.40	3.00	
	45.00	60.00		1.00	15.00			0.50	0.40	3.00	
	60.00	76.50		1.00	16.50			0.50	0.40	3.30	
								Total		**78.48**	**Cum**

AEE(NDD) AE(NDD) 10/4

TEJUS CONSULTANTS Consultant

BENAKA DEVELOPERS AND PROJECTS PVT. LTD. BANGALORE

Assistant Engineer AE(NDD)

Assistant Executive Engineer

Assistant Executive Engineer Kodigehalli Sub Division Bruhat Bangalore Mahanagara Palike Bangalore - 560 092

75

Bruhat Bengaluru Mahanagara Palike

Bytarayanapura Division

Job Code :-

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Bill No :-2nd & Part Bill

Name Of work : -.Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
6	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)										
	kallappa Layout										
	1st A Cross Road										
	0.00	15.00		1.00	15.00			1.80		27.00	
	15.00	30.00		1.00	14.00			1.80		25.20	
	30.00	45.00		1.00	14.00			1.80		25.20	
	45.00	60.00		1.00	15.00			1.80		27.00	
	60.00	64.00		1.00	4.00			1.80		7.20	
	2nd Cross Road										
	LHS										
	0.00	15.00		1.00	14.00			1.80		25.20	
	15.00	30.00		1.00	14.00			1.80		25.20	
	30.00	43.60		1.00	13.60			1.80		24.48	
	RHS										
	0.00	15.00		1.00	14.00			1.80		25.20	
	15.00	30.00		1.00	14.00			1.80		25.20	
	30.00	43.60		1.00	13.60			1.80		24.48	
	2nd A Cross Road										
	LHS										
	0.00	15.00		1.00	14.00			1.80		25.20	
	15.00	30.00		1.00	14.00			1.80		25.20	
	30.00	45.00		1.00	15.00			1.80		27.00	
	45.00	60.00		1.00	15.00			1.80		27.00	
	60.00	76.50		1.00	16.50			1.80		29.70	
	RHS										
	0.00	15.00		1.00	14.00			1.80		25.20	
	15.00	30.00		1.00	15.00			1.80		27.00	
	30.00	45.00		1.00	15.00			1.80		27.00	
	45.00	60.00		1.00	15.00			1.80		27.00	
	60.00	76.50		1.00	16.50			1.80		29.70	
									Total	**106.27**	**cum**

NDP DE(WZ) 15/4

Clerk 531.36

TEJUS CONSULTANTS Consultant

BENAKA DEVELOPERS AND PROJECTS PVT LTD BANGALORE

Assistant Engineer AE(WZ)

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

76

Bruhat Bengaluru Mahanagara Palike

Bytarayanapura Division

Job Code :-

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Bill No :-2nd & Part Bill

Name Of work : -.Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
7	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)										
	kallappa Layout										
	1st A Cross Road										
	15.00	30.00		1.00	1.00			1.80		1.80	
	30.00	45.00		1.00	1.00			1.80		1.80	
	2nd Cross Road										
	LHS										
	0.00	15.00		1.00	1.00			1.80		1.80	
	15.00	30.00		1.00	1.00			1.80		1.80	
	RHS										
	0.00	15.00		1.00	1.00			1.80		1.80	
	15.00	30.00		1.00	1.00			1.80		1.80	
	2nd A Cross Road										
	LHS										
	0.00	15.00		1.00	1.00			1.80		1.80	
	15.00	30.00		1.00	1.00			1.80		1.80	
	RHS										
	0.00	15.00		1.00	1.00			1.80		1.80	
								Total		**16.20**	**Sqm**

N.D
AE(W2)
15/4

15/4

TEJUS CONSULTANTS
Consultant

BENAKA DEVELOPERS AND PROJECTS PVT LTD * BANGALORE *

N.D
Assistant Engineer
AE(W2)

Assistant Executive Engineer
Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

77

Bruhat Bengaluru Mahanagara Palike

Bytarayanapura Division

Job Code :-

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Bill No :-2nd & Part Bill

Name Of work : -.Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
10	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)										
	kallappa Layout										
	1st Cross Road										
	LHS										
	0.00	15.00		2.00	15.00			0.30	0.10	0.90	
	15.00	30.00		2.00	15.00			0.30	0.10	0.90	
	30.00	44.30		2.00	14.30			0.30	0.10	0.86	
	RHS										
	0.00	15.00		2.00	15.00			0.30	0.10	0.90	
	15.00	30.00		2.00	15.00			0.30	0.10	0.90	
	30.00	43.90		2.00	13.90			0.30	0.10	0.83	
	1st A Cross Road										
	LHS										
	0.00	15.00		2.00	15.00			0.30	0.10	0.90	
	15.00	30.00		2.00	15.00			0.30	0.10	0.90	
	30.00	45.00		2.00	15.00			0.30	0.10	0.90	
	45.00	60.00		2.00	15.00			0.30	0.10	0.90	
	60.00	64.00		2.00	4.00			0.30	0.10	0.24	
	2nd Cross Road										
	RHS										
	0.00	15.00		2.00	15.00			0.30	0.10	0.90	
	15.00	30.00		2.00	15.00			0.30	0.10	0.90	
	30.00	43.60		2.00	13.60			0.30	0.10	0.82	
	2nd A Cross Road										
	LHS										
	0.00	15.00		2.00	15.00			0.30	0.10	0.90	
	15.00	30.00		2.00	15.00			0.30	0.10	0.90	
	30.00	45.00		2.00	15.00			0.30	0.10	0.90	
	45.00	60.00		2.00	15.00			0.30	0.10	0.90	
	60.00	76.50		2.00	16.50			0.30	0.10	0.99	
	RHS										
	0.00	15.00		2.00	15.00			0.30	0.10	0.90	
	15.00	30.00		2.00	15.00			0.30	0.10	0.90	
	30.00	45.00		2.00	15.00			0.30	0.10	0.90	
	45.00	60.00		2.00	15.00			0.30	0.10	0.90	
	60.00	76.50		2.00	16.50			0.30	0.10	0.99	
								Total		**20.93**	**cum**

NDP DE(LG) 15/4

Cert-C

15/4/19

TEJUS CONSULTANTS Consultant

BENAKA DEVELOPERS AND PROJECTS PVT. LTD. BANGALORE

Assistant Engineer

AE(LG)

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Pal
Bangalore - 560 092

78

Bruhat Bengaluru Mahanagara Palike
Bytarayanapura Division

Job Code :-

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Bill No :-2nd & Part Bill

Name Of work : -.Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
15	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 (P.No.12, I.No.5.27.2 of PW,P&IWTD S.R 2016-17)										
	kallappa Layout										
	1st Cross Road										
	LHS										
	0.00	15.00		2.00	15.00				0.40	12.00	
	15.00	30.00		2.00	15.00				0.40	12.00	
	30.00	44.30		2.00	14.30				0.40	11.44	
	RHS										
	0.00	15.00		2.00	15.00				0.40	12.00	
	15.00	30.00		2.00	15.00				0.40	12.00	
	30.00	43.90		2.00	13.90				0.40	11.12	
	1st A Cross Road										
	LHS										
	0.00	15.00		2.00	15.00				0.20	6.00	
	15.00	30.00		2.00	15.00				0.20	6.00	
	30.00	45.00		2.00	15.00				0.20	6.00	
	45.00	60.00		2.00	15.00				0.20	6.00	
	60.00	64.00		2.00	4.00				0.20	1.60	
	2nd Cross Road										
	RHS										
	0.00	15.00		2.00	15.00				0.40	12.00	
	15.00	30.00		2.00	15.00				0.20	6.00	
	30.00	43.60		2.00	13.60				0.20	5.44	
	2nd A Cross Road										
	LHS										
	0.00	15.00		2.00	15.00				0.40	12.00	
	15.00	30.00		2.00	15.00				0.20	6.00	
	30.00	45.00		2.00	15.00				0.20	6.00	
	45.00	60.00		2.00	15.00				0.20	6.00	
	60.00	76.50		2.00	16.50				0.20	6.60	
	RHS										
	0.00	15.00		2.00	15.00				0.20	6.00	
	15.00	30.00		2.00	15.00				0.20	6.00	
	30.00	45.00		2.00	15.00				0.20	6.00	
	45.00	60.00		2.00	15.00				0.20	6.00	
	60.00	76.50		2.00	16.50				0.20	6.60	
									Total	**186.80**	**Cum**

NMR AE(W7) 23/5

Certified

TEJUS CONSULTANTS
Consultant

BENAKA DEVELOPERS AND PROJECTS PVT. LTD. BANGALORE
Benaka

Assistant Engineer
AE(W7)

Assistant Executive Engineer
Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

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Bruhat Bengaluru Mahanagara Palike

Bytarayanapura Division

Job Code :-

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Bill No :-2nd & Part Bill

Name Of work : -.Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
18	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)										
	kallappa Layout										
	1st Cross Road										
	LHS										
	0.00	15.00		2.00	15.00			0.30	0.075	0.68	
	15.00	30.00		2.00	15.00			0.30	0.075	0.68	
	30.00	44.30		2.00	14.30			0.30	0.075	0.64	
	RHS										
	0.00	15.00		2.00	15.00			0.30	0.075	0.68	
	15.00	30.00		2.00	15.00			0.30	0.075	0.68	
	30.00	43.90		2.00	13.90			0.30	0.075	0.63	
	1st A Cross Road										
	LHS										
	0.00	15.00		2.00	15.00			0.30	0.075	0.68	
	15.00	30.00		2.00	15.00			0.30	0.075	0.68	
	30.00	45.00		2.00	15.00			0.30	0.075	0.68	
	45.00	60.00		2.00	15.00			0.30	0.075	0.68	
	60.00	64.00		2.00	4.00			0.30	0.075	0.18	
	2nd Cross Road										
	RHS										
	0.00	15.00		2.00	15.00			0.30	0.075	0.68	
	15.00	30.00		2.00	15.00			0.30	0.075	0.68	
	30.00	43.60		2.00	13.60			0.30	0.075	0.61	
	2nd A Cross Road										
	LHS										
	0.00	15.00		2.00	15.00			0.30	0.075	0.68	
	15.00	30.00		2.00	15.00			0.30	0.075	0.68	
	30.00	45.00		2.00	15.00			0.30	0.075	0.68	
	45.00	60.00		2.00	15.00			0.30	0.075	0.68	
	60.00	76.50		2.00	16.50			0.30	0.075	0.74	
	RHS										
	0.00	15.00		2.00	15.00			0.30	0.075	0.68	
	15.00	30.00		2.00	15.00			0.30	0.075	0.68	
	30.00	45.00		2.00	15.00			0.30	0.075	0.68	
	45.00	60.00		2.00	15.00			0.30	0.075	0.68	
	60.00	76.50		2.00	16.50			0.30	0.075	0.74	
								Total		**15.70**	**Cum**

AE(W4) 23/5

23/5/25

Consultant

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

80

Bruhat Bengaluru Mahanagara Palike
Bytarayanapura Division

Job Code :-

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Bill No :-2nd & Part Bill

Name Of work : -.Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
20	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)										
	kallappa Layout										
	1st Cross Road										
	LHS										
	0.00	15.00		1.00	15.00			0.90		13.50	
	15.00	30.00		1.00	15.00			0.90		13.50	
	30.00	44.30		1.00	14.30			0.90		12.87	
	RHS										
	0.00	11.30		1.00	11.30			0.90		10.17	
	11.30	37.70		1.00	26.40			0.90		23.76	
	40.10	43.90		1.00	3.80			0.90		3.42	
	1st A Cross Road										
	LHS										
	0.00	15.00		1.00	15.00			0.90		13.50	
	15.00	30.00		1.00	15.00			0.90		13.50	
	30.00	45.00		1.00	15.00			0.90		13.50	
	45.00	49.00		1.00	4.00			0.90		3.60	
	54.50	64.00		1.00	9.50			0.90		8.55	
	2nd Cross Road										
	LHS										
	0.00	8.00		1.00	8.00			0.90		7.20	
	31.50	43.60		1.00	12.10			0.90		10.89	
	RHS										
	0.00	12.00		1.00	12.00			0.90		10.80	
	17.50	21.00		1.00	3.50			0.90		3.15	
	40.50	43.60		1.00	3.10			0.90		2.79	
	2nd A Cross Road										
	LHS										
	0.00	11.00		1.00	11.00			0.90		9.90	
	12.70	16.00		1.00	3.30			0.90		2.97	
	RHS										
	0.00	21.50		1.00	21.50			0.90		19.35	
	31.00	41.50		1.00	10.50			0.90		9.45	
									Total	**206.37**	**Sqm**

NDP AE(UP) 21/8

Consultant

Assistant Engineer AE(UP)

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092